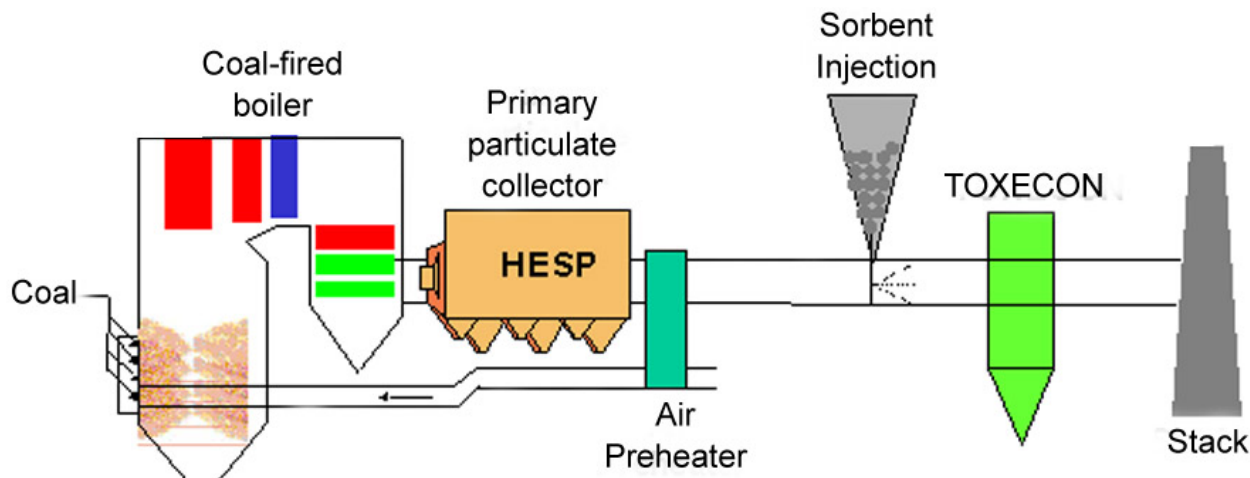


# Wisconsin Electric Power Company

- An integrated emission control approach installed on combined flue gas units 7, 8, and 9.
- Maximizes use of coal combustion by-products.
- Provides for timely compliance with future mercury regulations, such as Clear Skies Initiative.
- Total Project funding: \$49.5 million (DOE share: \$24.7 million).



## A CCPI Round 1 Project



# – **Background**

- **Wisconsin Electric Power Company (We Energies) will demonstrate TOXECON process on combined flue gas stream of Units 7, 8, and 9 (270 MWe total) burning low-sulfur Powder River Basin (PRB) subbituminous coal.**
- **Project Location: Presque Isle Power Plant, Marquette, MI.**
- **Team Members**
  - ADA Environmental Solutions, management support; design and specifications for Hg control; and monitoring
  - Cummins and Barbard, architect and engineering services and construction management
  - Environmental Elements Corporation, baghouse design and installation support
  - EPRI, TOXECON developer and technical advisor



## **Technology Uniqueness**

- **TOXECON is an integrated process that controls mercury (Hg), NO<sub>x</sub>, SO<sub>2</sub> and particulate matter. TOXECON injects sorbents, including activated carbon for Hg control and others for NO<sub>x</sub> and SO<sub>2</sub> control, into a pulse jet-baghouse installed downstream of the existing particulate control device.**
- **This configuration allows separate treatment/disposal of ash collected in primary control device maximizing use of coal combustion by-products.**



## — **Technology Uniqueness**

- **Multi-pollutant control strategy will help achieve President's Clear Skies Initiative, which calls for reductions in Hg (69% total), NO<sub>x</sub> (67%), and SO<sub>2</sub> (73%) beyond current requirements.**



# – Schedule

- **NEPA Process –** Environmental Assessment  
Start: May 12, 2003  
Targeted Finish: September 12, 2003
- **Design –** To Be Determined
- **Construction –** To Be Determined
- **Commissioning –  
& Startup** To Be Determined
- **Project Complete –** To Be Determined



## **Potential Benefits**

- **Primary project benefit is potential to develop low-cost option for dramatic, deep cleaning of plant air emissions, especially Hg.**
- **This project, when completed in 2007, is expected to capture 80 pounds of Hg reducing emissions by 90% at the Presque Isle Power Plant.**
- **Successful implementation of TOXECON will help power generating industry to achieve timely compliance with future Hg regulations, especially Clear Skies Initiative and pending U.S. EPA regulations.**



## – **Potential Benefits**

- **Technology may prove to be primary Hg control choice for plants burning western coals with cold side ESPs (68 GW), bituminous coals with cold side ESP's (81 GW) and only choice for units burning any coal-type with hot-side ESPs (18 GW).**
- **Using TOXECON to control NO<sub>x</sub>, SO<sub>2</sub> and particulate matter further enhances its attractiveness for improved environmental control.**

